

the condition of education 2007



INDICATOR 14

Trends in the Achievement Gaps in Reading and Mathematics

The indicator and corresponding tables are taken directly from *The Condition of Education 2007*. Therefore, the page numbers may not be sequential.

Additional information about the survey data and supplementary notes can be found in the full report. For a copy of *The Condition of Education 2007*, visit the NCES website (<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2007064>) or contact ED PUBs at 1-877-4ED-PUBS.

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Academic Outcomes

Trends in the Achievement Gaps in Reading and Mathematics

Between 1990 and 2005, differences between White and Black and Hispanic scores in reading and mathematics fluctuated at the 4th and 8th grades. Between 2003 and 2005, the most recent period, the achievement gaps in reading and mathematics narrowed for most groups.

The National Assessment of Educational Progress (NAEP) has assessed student reading and mathematics performance since the early 1990s. NAEP thus provides a picture of the extent to which student performance in each subject has changed over time, including the achievement gaps between White and Black and White and Hispanic students.

In reading, the achievement gaps between White and Black and White and Hispanic 4th-graders have fluctuated since 1992, but the gaps in 2005 were not measurably different from those in 1992. In 2005, at the 4th-grade level, Blacks scored, on average, 29 points lower than Whites (on a 0–500 scale), and Hispanics scored, on average, 26 points lower than Whites (see supplemental table 14-1). At 8th grade, there was no measurable change in the White-Black achievement gap

between 1992 and 2005, and little change in the White-Hispanic gap, although the gap in 2005 was slightly lower than that in 2003 (25 points compared with 27 points).

In mathematics, the achievement gap between White and Black 4th-graders decreased between 1990 and 2005 (from 32 to 26 points). The White-Hispanic 4th-grade gap increased in the 1990s before decreasing in the first half of the 2000s, but the gap in 2005 (20 points) was not measurably different from that in 1990. Among 8th-graders, a similar trend existed in both the White-Black and White-Hispanic score gaps: increases occurred in the 1990s before decreasing to levels not measurably different from those in 1990. In 2005, the White-Black gap was 34 points, and the White-Hispanic gap was 27 points.

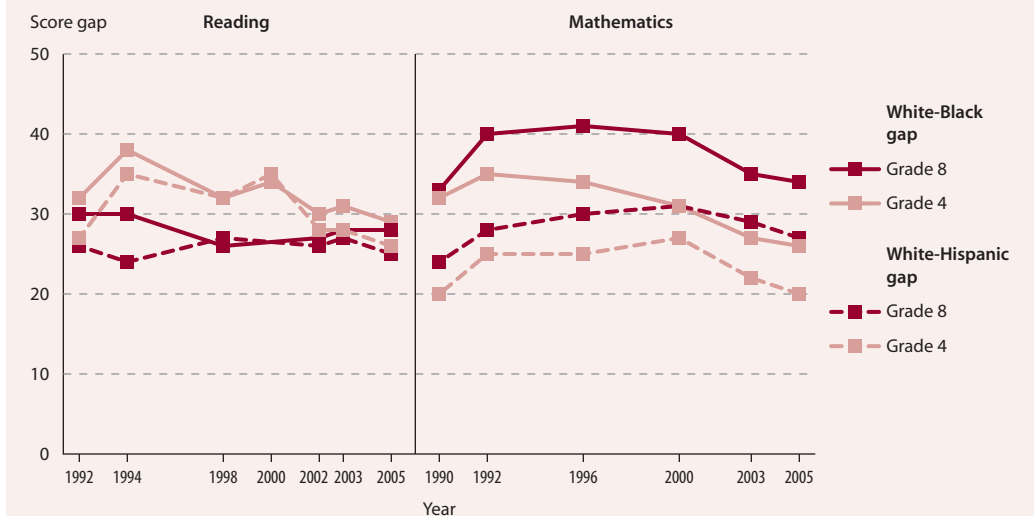
NOTE: NAEP scores are calculated on a 0–500 scale. Student assessments are not designed to permit comparisons across subjects or grades. Race categories exclude persons of Hispanic ethnicity. The score gap is determined by subtracting the average Black and Hispanic score, respectively, from the average White score. Testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English-proficient students were not permitted in 1990–94. Beginning in 2002, the NAEP national sample for grades 4 and 8 was obtained by aggregating the samples from each state, rather than by obtaining an independently selected national sample. See *supplemental note 4* for more information on NAEP.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1990–2005 Reading and Mathematics Assessments, NAEP Data Explorer.



FOR MORE INFORMATION:
Supplemental Notes 1, 4
Supplemental Table 14-1
NCES 2006-451
NCES 2006-453

ACHIEVEMENT GAP: Differences in White-Black and White-Hispanic 4th- and 8th-grade average reading and mathematics scores: Various years, 1990–2005



Trends in the Achievement Gaps in Reading and Mathematics

Table 14-1. White-Black and White-Hispanic gaps in average reading and mathematics scores, by grade: Various years, 1990–2005

Subject, race/ethnicity, ¹ and grade	1990	1992	1994	1996	1998	2000	2002	2003	2005
Reading									
White-Black gap									
Grade 4	—	32	38	—	32	34	30	31	29
Grade 8	—	30	30	—	26	—	27	28	28
White-Hispanic gap									
Grade 4	—	27	35	—	32	35	28	28	26
Grade 8	—	26	24	—	27	—	26	27	25
Mathematics									
White-Black gap									
Grade 4	32	35	—	34	—	31	—	27	26
Grade 8	33	40	—	41	—	40	—	35	34
White-Hispanic gap									
Grade 4	20	25	—	25	—	27	—	22	20
Grade 8	24	28	—	30	—	31	—	29	27

— Not available (tests not conducted in all grades for all years).

¹ Race categories exclude persons of Hispanic ethnicity.

NOTE: The score gap is determined by subtracting the average Black or Hispanic score, respectively, from the average White score. Testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English-proficient students were not permitted in 1990–94. Beginning in 2002, the NAEP national sample for grades 4 and 8 was obtained by aggregating the samples from each state, rather than by obtaining an independently selected national sample. As a consequence, the size of the national sample increased, and smaller differences between years or between types of students were found to be statistically significant than would have been detected in previous assessments. See *supplemental note 4* for more information on NAEP.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1990–2005 Reading and Mathematics Assessments, NAEP Data Explorer.

Trends in the Achievement Gaps in Reading and Mathematics

Table S14-1. Standard errors for the White-Black and White-Hispanic gaps in average reading and mathematics scores, by grade: Various years, 1990–2005

Subject, race/ethnicity, and grade	1990	1992	1994	1996	1998	2000	2002	2003	2005
Reading									
White-Black gap									
Grade 4	†	2.1	2.2	†	2.2	2.1	0.6	0.5	0.4
Grade 8	†	2.0	2.1	†	1.5	†	0.9	0.5	0.5
White-Hispanic gap									
Grade 4	†	2.9	3.6	†	3.3	3.1	1.4	0.6	0.5
Grade 8	†	2.0	1.5	†	1.9	†	0.9	0.7	0.5
Mathematics									
White-Black gap									
Grade 4	2.0	1.6	†	1.8	†	1.5	†	0.4	0.3
Grade 8	3.0	1.7	†	2.2	†	1.5	†	0.6	0.4
White-Hispanic gap									
Grade 4	2.4	1.7	†	2.1	†	1.7	†	0.5	0.3
Grade 8	4.5	1.5	†	2.0	†	1.6	†	0.7	0.5

† Not applicable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1990–2005 Reading and Mathematics Assessments, NAEP Data Explorer.